Current Support Brief

PROSPECTS FOR THE AVAILABILITY OF CHEMICAL FERTILIZERS IN THE USSR IN 1965

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PROSPECTS FOR THE AVAILABILITY OF CHEMICAL FERTILIZERS IN THE USSR IN 1965

Stimulated by the poor crop of 1963 and the dismal record to date in commissioning new fertilizer plants, the USSR has embarked on a crash program to expand its fertilizer industry. A Plenum of the Central Committee to discuss the chemical industry has been set for some time in November and should clarify the priority of the program for the fertilizer industry, the means of implementing it, and the long-term goals. The present target calls for production of 35 million metric tons (mt) of fertilizers in 1965* compared with an estimated production of 20 million mt in 1963. Even with a high priority the achievement of more than 30 million mt of production in 1965 seems unlikely in light of present and continuing shortcomings in construction and technical difficulties in production. Plants recently purchased from the West should provide about 2 million mt of annual production by 1965.

If production in 1965 is about 30 million mt, agriculture should be allocated about 26 million mt, assuming that Soviet exports of fertilizers and nonagricultural uses of fertilizer raw materials remain at the planned level for 1963 (about 4 million mt) and that imports, if any, are insignificant. Losses of fertilizers in transport and storage, about 20 percent of the total output in recent years, probably will continue to be large in 1965.

* The Soviet target of 35 million mt is approximately equivalent to US production in 1962. Soviet fertilizer statistics are based on the following content of nutrients: nitrogen (N), 20.5 percent; phosphorus, 18.7 percent P_2O_5; and potassium, 41.6 percent K_2O.

1. Progress of the Soviet Fertilizer Industry, 1959-63

Confronted with the Seven Year Plan (1959-65) to produce 35 million mt of fertilizer in 1965, an increase of almost 23 million mt above that in 1958, the USSR succeeded in producing only 17.3 million mt in 1962, an increase of just under 5 million mt in a 4-year period. The plan for commissioning new fertilizer facilities was fulfilled by only 44 percent in 1959-61 and by little more than 50 percent in 1962. 1/ The plan for 1963 called for production of fertilizers to rise to 20 million mt, an increase of 2.7 million mt above that in 1962, and midyear reports support the probability of plan fulfillment. However, the capacity increase planned in 1963 -- almost 8 million mt -- appears far less likely of fulfillment. Thus far in 1963, lags in construction have been reported at about 20 facilities scheduled to produce fertilizers or fertilizer raw materials. It was reported in August that 80 percent of the planned new capacity for fertilizers still had to be commissioned, 2/ and although most construction normally is done in the last half of the year in the USSR, the task is extremely formidable in spite of the assignment of members of Komsomol to aid in the commissioning of some 59 fertilizer projects and in spite of the formation of a new construction committee to direct installation of fertilizer capacity. 3/ A further massive increase in fertilizer capacities -- more than 9 million mt -- is planned in 1964. As in 1963 the disparity between planned increases in capacity and planned increases in production again is likely to be striking, for the latter increase apparently is to be on the order of 4 million or 5 million mt in 1964. One explanation for the disparity, already suggested, is that much of the planned new capacity goes into operation late in the year, when it can contribute little to the total output for the year. Moreover, mastery of some of the new processes and equipment used in the fertilizer industry has been slow, in part owing to the inexperience of plant cadres but also occasioned by the failure of certain of the new processes or a part of the equipment to operate as anticipated. At one Soviet facility a shop for production of complex fertilizers that was put into operation 2 years ago currently is working at 45 percent of capacity. 4/ In addition, shortages of major raw materials, particularly sulfuric acid, have idled production facilities.

2. Estimated Soviet Production of Fertilizers in 1965 and Contribution of Plants Purchased from the West

Although Soviet problems with commissioning new plants and bringing them to full capacity are likely to persist for at least the next 2 years, the new Soviet emphasis on the industry portends a significant improvement over past performance, and increases of perhaps 5 million mt a year in 1964 and 1965 appear to be possible. The estimate is a tentative one because of the large number of imponderables involved, not the least of which is the paucity of data concerning the precise stage of construction of a very large number of installations. Of the estimated increase in production of 10 million mt in the next 2 years, plants purchased from the West may provide about 2 million mt, chiefly nitrogen fertilizers.* In addition, plants purchased from the West will provide substantial quantities of phosphorus and phosphoric acid, raw materials for phosphorus fertilizers, and ammonia, which may be used directly in liquid form as a nitrogen fertilizer or be the input for more complex nitrogen fertilizers. Soviet purchases of fertilizer plants from the West in 1960-62 are shown in the Table.

3. Soviet Losses of Fertilizers

The large recurring losses of fertilizers experienced in the USSR during transport and storage have been caused in large measure by insufficient and inadequate packaging and the lack of warehouses to store fertilizers during the off season. Warehouse capacity for fertilizer amounted to 800,000 mt in 1962, about one-tenth of that said to be needed. 5/ In 1963 a Soviet plan was announced to build during 1963-66 warehouse capacity sufficient to store 8.3 million mt of dry fertilizers and 1.3 million mt of liquid fertilizers. In 1963 the new warehouse capacity built was to amount to 1.8 million mt, but as of August 1963 only 10 percent of the annual plan had been fulfilled. 6/

* The purchased plants for which capacities are known should produce about 1.8 million mt of nitrogen fertilizer (20.5 percent N), assuming that the plants are operated 330 days per year.

On the assumption that some delays in building fertilizer warehouses will continue and that packaging of the needed quality may still not be available in sufficient quantity in the next 2 years, it is probable that losses will still be large in 1965, although some improvement is likely above the performance in 1962, when 20 percent of all fertilizers reportedly was lost. 7/

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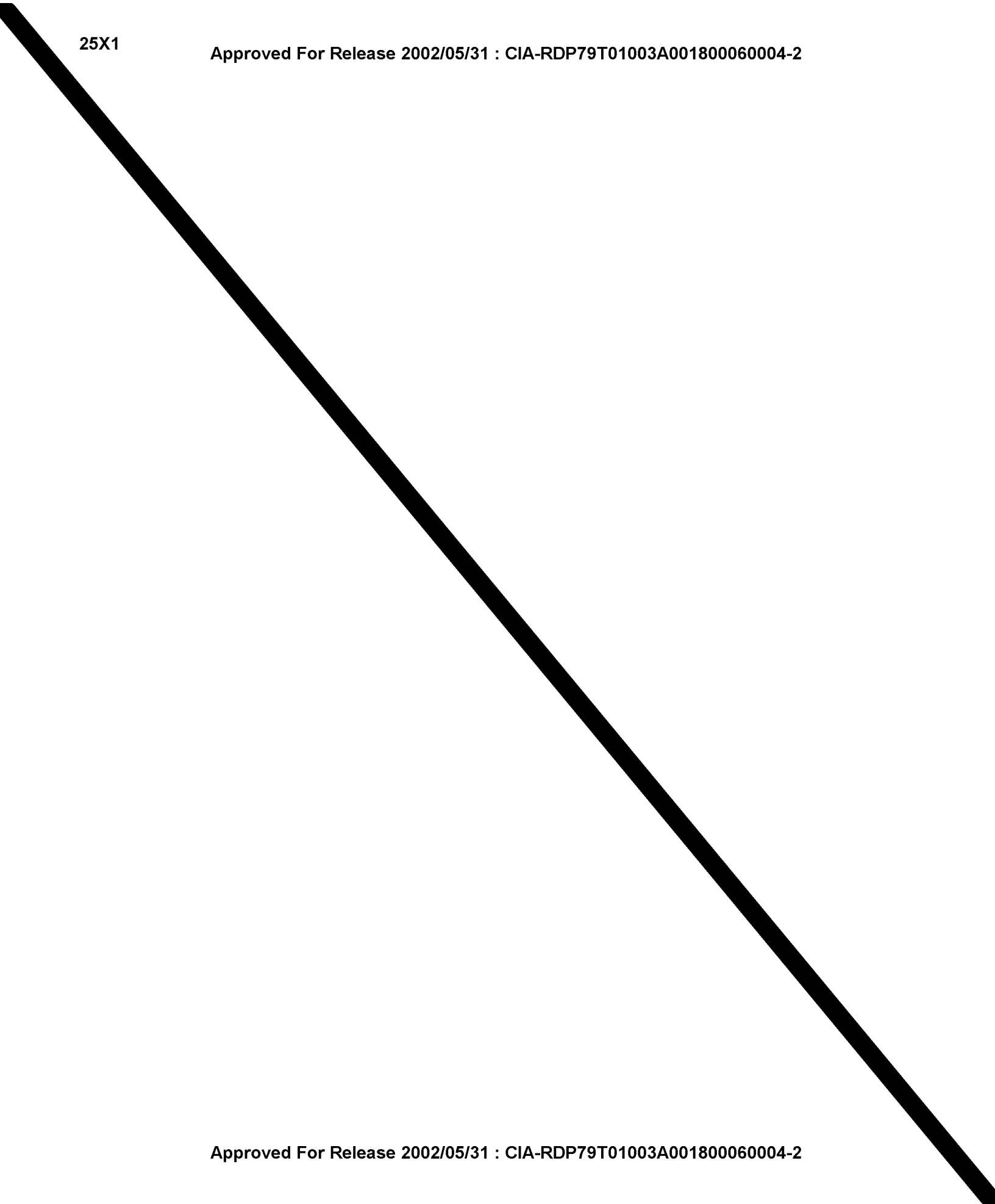
Table

Soviet Purchases of Fertilizer Plants From the West a/
1960-62

Type of Plant	Planned Capacity	Supplier	Price (Million US $)	Planned Date of Operation
Urea (four plants)	2,000 mt per day	Netherlands	24.9	1963
Ammonium nitrate	600 mt per day	Belgium	N.A.	1962 (no evidence of operation as of Sep 63)
Ammonium sulfate	2,000 mt per month	UK	N.A.	N.A. (date of contract 1962)
Phosphatic fertilizer	N.A.	Belgium	N.A.	N.A. (date of contract 1962)
Fertilizer, unspecified	N.A.	West Germany	17.0	1965

a. 8/



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